

Appl. No. 10/728,321
Response dated 09/28/2007
Reply to Office Action of 09/28/2007

REMARKS

Claims 1 and 12 remain as previously presented. Claims 11 and 21 were previously cancelled. Claims 2 – 10 and 13 – 20 remain as originally presented. Claims 22 – 28 remain withdrawn as they are directed to a non-elected invention.

Claims 1 – 21 have been rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 – 9 and 14 – 19 of U.S. Patent No. 7,268,098. According, a terminal disclaimer, disclaiming the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of U.S. Patent No. 7,268,098, is filed herewith.

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Claims 1 – 21 have been rejected under 35 USC §103(a) as being unpatentable over Matsui, et al. (U.S. Patent No. 4,996,182). The Examiner argues that Matsui et al disclose a multilayer oriented thermoplastic composite for use in printing devices which has a similar layer-by-layer structure to the present claimed composite, which can contain a pigment as required by the present claims and which can be as thin as the present claimed composite. The Examiner further argues that although Matsui does not specifically disclose the composite may have a thickness of from about 0.05 mils to about 0.75 mils, thickness is an optimizable feature, pointing out that Applicant fails to disclose any criticality with respect to the recited thickness range. However, it is not thickness *per se* but a balance between thickness and modulus which is critical to the present invention. Specifically, the present claims are directed to an oriented thermoplastic composite for use as a register or receipt tape, so the composite must be thin enough to for use as a “drop-in” for a conventional point-of-sale cash register. However, the composite must also be stiff enough to work in a cash register or other type of point-of-sale printer. Applicant respectfully contends that the composite of the Matsui et al. is not at once thin enough and stiff enough for the present claimed use. Specifically, it is the cavity content requirement of the Matsui et al. reference which would render that film useless as a drop-in replacement for a conventional paper receipt. Figure 2 of the Matsui et al. patent shows the Young’s modulus of the film as a function of cavity content. At the lowest workable cavity content according to Matsui, et al., 40 cc/100 g, the film has a modulus in the machine direction of approximately 102 kg/mm² (145,000 psi). From there the modulus drops as the cavity content increases. The present claims require a

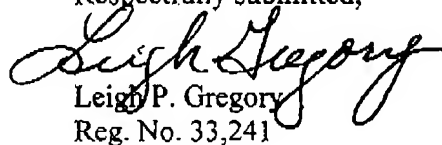
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minimum modulus of 150,000 psi. This lower limit does not represent a mere experimental "tweaking" of the film in order to ascertain optimum operating conditions. Rather, Applicant's data clearly show that a sufficiently high modulus is required to provide a film which is useable in point of sale printers. That is, throughout the development of the present inventive composite none of the numerous films which were produced having a modulus of less than 150,000 psi "worked." They either jammed in the printer or could not be cut following printing. It was not until Applicant recognized the criticality of a relatively thin, high modulus film that a useful composite was achieved. Thus, although the films of Matsui et al. may be useful for some printing applications, they cannot serve as drop-in replacements for conventional paper receipts in the manner of the present claimed composites.

Accordingly, it is submitted that the present case is in condition for allowance and such action is respectfully requested.

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